

REMARKS

Claims 1-20 were originally filed in the present application.

Claims 1-20 were pending in the present application.

Claims 1-20 were rejected in the July 16, 2007 Office Action.

No claims have been allowed.

Claims 1-20 remain in the present application.

Reconsideration of the claims is respectfully requested.

In Section 2 of the July 16, 2007 Office Action, the Examiner provisionally rejected Claims 1-20 on the grounds of non-statutory double patenting over Claims 1-24 of co-pending U.S. Patent Application Publication No. 2004/0223502 to *Wybenga, et al.* (the “Wybenga reference”). Applicants respectfully disagree and traverse the Examiner’s arguments in support of the rejection.

The provisional double-patenting rejection of Claims 1-20 is noted. Applicants will address this issue when the Wybenga reference issues, and thus the actual differences between the issued claims and Claims 1-20 in the present application can be analyzed.

Accordingly, Applicants respectfully request that the provisional rejection to Claims 1-20 be held in abeyance until the Wybenga reference issues as a patent.

In Sections 3-12 of the July 16, 2007 Office Action, the Examiner rejected Claims 1-16 under 35 U.S.C. §102(e) as anticipated by U.S. Patent No. 7,154,902 to *Sikdar* (the “Sikdar reference”). Applicants respectfully disagree and traverse the Examiner’s arguments in support of the rejection.

Claim 1 of the present application requires:

A router for interconnecting external devices coupled to said router, said router comprising:
a switch fabric; and

a plurality of routing nodes coupled to said switch fabric, wherein each of said plurality of routing nodes comprises packet processing circuitry capable of transmitting data packets to, and receiving data packets from, said external devices and further capable of transmitting data packets to, and receiving data packets from, other ones of said plurality of routing nodes via said switch fabric, wherein said packet processing circuitry comprises a first network processor comprising:

N microengines capable of forwarding said data packets, each of said microengines capable of executing a plurality of threads that perform forwarding table lookup operations;
and

workload distribution circuitry capable of distributing data packets to said N microengines for forwarding. (emphasis added).

Notably, Claim 1 requires, for example, that the first network processor includes N microengines capable of forwarding said data packets. Claim 1 also requires that *each of said microengines is capable of executing a plurality of threads that performs forwarding table lookup operations.*

Although the Examiner cites to column 4, lines 57-67 of the Sikdar reference for support, the Sikdar reference merely teaches a router having two packet-input/output cards, LC1 and LC2, four switch-fabric cards, SF1 and SF2, SF3 and SF4, and a route-processing module RPM 70, all of which are connected to a backplane 100. Sikdar reference, column 4, lines 39-44 and Figure 2. In fact, at the very most, the cited portions of the Sikdar reference disclose that LC1 and LC2 includes circuitry to interface with ports 60, 62, 64 and 66, to process packet headers and to perform routing table lookups. *Id.* at column 4, lines 57-59.

The Sikdar reference, however, fails to teach or disclose, for example, *microengines capable of executing a plurality of threads that perform forwarding table lookup operations*, as required by

Claim 1 and its dependents, Claims 2-8. Similar arguments exist for Claim 9 and its dependents, Claims 10-16.

Accordingly, the Applicants respectfully request favorable reconsideration and the withdrawal of the §102 rejection to Claims 1-16.

In Sections 13-16 of July 16, 2007 Office Action, the Examiner rejected Claims 17-20 under 35 U.S.C. §102(e) as anticipated by the Sikdar reference or, in the alternative, as unpatentable over the Sikdar reference under 35 U.S.C. §103(a). Applicants respectfully disagree and traverse the Examiner's arguments in support of the rejection.

Claim 17 of the present application currently requires:

For use in a router comprising a switch fabric and a plurality of routing nodes coupled to the switch fabric, each of the routing nodes capable of transmitting data packets to, and receiving data packets from, external devices and transmitting data packets to, and receiving data packets from, other routing nodes via the switch fabric, a method of distributing data packets for forwarding comprising the steps of:

receiving a plurality of data packets in a first network processor of a first routing node, *the first network processor comprising N microengines capable of forwarding the data packets, each of the microengines capable of executing a plurality of threads that perform forwarding table lookup operations;*

allocating a first data packet to a first thread in each of the N microengines; and after said first step of allocating, allocating a second data packet to a second thread in each of the N microengines. (emphasis added).

Notably, Claim 17 requires a method of distributing data packets for forwarding including, for example, receiving a plurality of data packets in a first network processor of a first routing node. Claim 17 also requires that the first network processor includes N microengines capable of forwarding the data packets, where *each of the microengines is capable of executing a plurality of threads that perform forwarding table lookup operations.*

Although the Examiner cites to various sections of the Sikdar reference for support, at the very most, the cited portions of the Sikdar reference disclose that (1) eight separate serdes units communicate with switch fabric 80, where each serdes services four ingress threads and four egress threads (one set of ingress and egress threads are unused on serdes 206 and serdes 208); and (2) LC1 and LC2 includes circuitry to interface with ports 60, 62, 64 and 66, to process packet headers and to perform routing table lookups. *Id.* at column 11, lines 38-41 and column 4, lines 57-59.

The Sikdar reference, however, fails to teach or disclose, for example, *microengines capable of executing a plurality of threads that perform forwarding table lookup operations*, as required by Claim 16 and its dependents, Claims 17-20.

Moreover, there is no motivation or suggestion within the Sikdar reference to prompt one of ordinary skill to selectively combine discrete elements from each and then *seek out* still other elements as required by Claim 16 and its dependents Claims 17-20.

Accordingly, the Applicants respectfully request favorable reconsideration and the withdrawal of the §102 and §103 rejections to Claims 16-20.

SUMMARY

For the reasons given above, the Applicants respectfully request reconsideration and allowance of the pending claims and that this application be passed to issue. If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at jmockler@munckbutrus.com.

The Commissioner is hereby authorized to charge any additional fees connected with this communication or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

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